



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,729	09/18/2003	Arihiro Takeda	1117.68339	5616
7590	04/23/2004		EXAMINER	
Patrick G. Burns, Esq. GREER, BURNS & CRAIN, LTD. Suite 2500 300 South Wacker Dr. Chicago, IL 60606			DUONG, THOI V	
			ART UNIT	PAPER NUMBER
			2871	
DATE MAILED: 04/23/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/664,729	TAKEDA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Thoi V Duong	2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 22 March 2004.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 27-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 27-31 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All .. b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. 10/047,216.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                     | Paper No(s)/Mail Date. _____ .  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

**DETAILED ACTION**

***Priority***

1. This application appears to be a division of Application No. 10/047216, filed January 14, 2002. A later application for a distinct or independent invention, carved out of a pending application and disclosing and claiming only subject matter disclosed in an earlier or parent application is known as a divisional application or "division." The divisional application should set forth only that portion of the earlier disclosure which is germane to the invention as claimed in the divisional application.

Accordingly, claims 1-26 and 32-33 were cancelled. Claims 27-31 are now pending in this application.

***Inventorship***

2. In view of the papers filed March 22, 2004, the inventorship in this nonprovisional application has been changed by the deletion of Arihiro Takeda, Shingo Kataoka, Tsuyoshi Kamada and Kazuya Ueda.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of the file jacket and PTO PALM data to reflect the inventorship as corrected.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application

by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 27 and 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Song et al. (USPN 6,710,837 B1).

Song et al. discloses a liquid crystal display device comprising:  
a first substrate 10 having thereon a pixel electrode 200 and an active element (see also Figs. 20A-20D; col. 11, line 65 through col. 12, line15);  
a second substrate 20 having thereon an opposed electrode 130 (see Figs. 19A-19E; col. 11, lines 58-64); and  
a liquid crystal layer interposed between said first and second substrates with said electrodes facing each other (col. 12, lines 15-23),  
wherein a first orientation control element 270 extending in a nonparallel direction relative to an extending direction of an edge of said pixel electrode 200 and a second orientation control element 171 extending in a parallel direction 222 relative to an extending direction of said edge are provided on at least one of said first and second substrates (Figs. 5, 8B and 9); and

said second orientation control element is constituted by an assembly of shapes (triangular shape as shown in Fig. 5) having directivity in a direction of the substrate's plane surface (Fig. 8B),

wherein, re claim 29, said first orientation control element is a slit formed in said pixel electrode 200 (Fig. 5);

wherein, re claim 30, said second orientation control elements is a protrusion formed on said opposed electrode (Fig. 5); and

wherein, re claim 31, a dielectric anisotropy of said liquid crystal molecules of said liquid crystal layer is negative (col. 12, lines 19-23).

5. Claims 27 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Song et al. (USPN 6,710,837 B1).

Song et al. discloses a liquid crystal display device comprising:

a first substrate 10 having thereon a pixel electrode 200 and an active element (see also Figs. 20A-20D; col. 11, line 65 through col. 12, line15);

a second substrate 20 having thereon an opposed electrode 130 (see Figs. 19A-19E; col. 11, lines 58-64); and

a liquid crystal layer interposed between said first and second substrates with said electrodes facing each other (col. 12, lines 15-23),

wherein, as shown in Fig. 8A, a first orientation control element 170 extending in a nonparallel direction relative to an extending direction of an edge of said pixel electrode 200 and a second orientation control element 171 extending in a parallel

direction 222 relative to an extending direction of said edge are provided on said second substrate; and

    said second orientation control element is constituted by an assembly of shapes (triangular shape as shown in Fig. 5) having directivity in a direction of the substrate's plane surface (Fig. 8A),

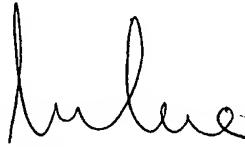
    wherein said second orientation control element is formed to extend in an outer direction from said first orientation control element which is adjacent to said second orientation control element on the same substrate (Fig. 8A).

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (571) 272-2293.

Thoi Duong   
04/15/2004

  
DUNG T. NGUYEN  
PRIMARY EXAMINER